

## Session #6: Infrastructure and regional development

### Key Questions

- Analyzing infrastructure's impact on economic development has been the theme for this and the past few sessions. Readings for this session examine the connection between infrastructure and economic development at the regional level. Why is it important to conduct regional compared to a national analysis? What new findings does it reveal? What findings that we already know from national-level analysis does it confirm or refine? (Open question) We have seen from all readings the data constraints on proving the effectiveness of infrastructure investment. If you were to design a study with unlimited data on any aspects of the economy at a scale of your choice, what kind of relationship would you want to examine, in order to see the contribution of infrastructure? Why (explain the mechanism)?
- (Open question) We have studied the mechanisms through which infrastructure contributes to both urban and rural economies. However, given the difficulties in measuring infrastructure, data collection, selecting the best indicator and so on, empirical studies have not been very effective in proving the connection. What implications does it have for policy making, in your opinion?

### Specific questions on each reading:

#### Fan and Zhang: Infrastructure and regional economic development in China

- Recall Ali and Permia's discussion on how infrastructure promotes poverty reduction in the rural area by affecting both farm and non-farm sector (see the graph at the end of this handout). How does Fan and Zhang's empirical research on China confirm or refine the findings?

#### Munnel: How does public infrastructure affect regional economic performance?

- Munnel finds that the "major impact on output from public capital comes from highways and water and sewer systems, while other public capital, which consists primarily of buildings, such as schools and hospitals, has virtually no measurable impact on private production." Is this conclusion something you expected, from your own experience and/or from readings from previous sessions? Why? Are there any reasons behind this?
- What are the author's findings of the impact of public capital on private investment?

## Eberts: Public Infrastructure and Regional Economic Development

- Eberts' approach to proving the connection between public infrastructure and regional economic developing centers around the concept "locational advantage". What is "locational advantage"? How does infrastructure strengthen the locational advantage of a place?
- The author argues that the effect of public infrastructure on regional development depends on 1) the type of investment, and 2) economic conditions of the region (economically lagging region or more advanced regions). For example, economic overhead capital (public works—roads, bridges, streets, waterways) has a significant effect on GDP for intermediate regions but not for lagging regions; social overhead capital (education, health facilities, police station etc) exhibits the opposite effect. Can you think of the reasons for this?

Figure removed due to copyright restrictions. To view the figure please go to page 4 of: "Infrastructure and Poverty Reduction-What is the Connection?" by Ifzal Ali and Ernesto M. Pernia.

MIT OpenCourseWare  
<http://ocw.mit.edu>

11.165 / 11.477 Infrastructure in Crisis: Energy and Security Challenges  
Fall 2009

For information about citing these materials or our Terms of Use, visit: <http://ocw.mit.edu/terms>.